



U.S. Army Research Institute for the Behavioral & Social Sciences

# FACT SHEET



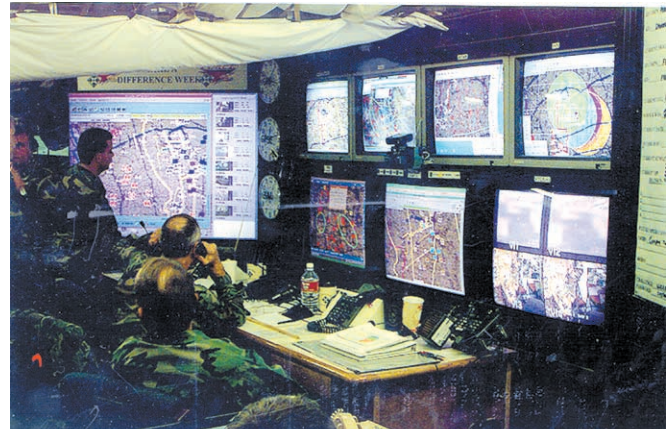
## Structured Simulation-Based Training

*Summary – Based primarily on work completed in its unit at Fort Knox, KY, the US Army Research Institute (ARI) has developed a structured training methodology for exploiting the capabilities of simulation. This methodology has been refined and expanded over the past six years to provide prototype training support packages (TSPs) for exercises in various virtual, constructive, and live environments at platoon through brigade staff echelons. Feedback indicates that the structured approach can provide effective and efficient training in all training environments. Structured training can also provide flexibility to meet the needs of various users at distributed locations. Development of a structured training program should be addressed early in the acquisition of any training system.*

### Characteristics of Structured Training

Rather than being a new approach to training, structured training is simply a refined application of the Army's Systems Approach to Training, incorporating findings from the human learning research domain to take advantage of the capabilities offered by simulations. Structured training provides a deliberate focus on training objectives, specified in terms of the tasks to be trained. This explicit task focus is maintained during frequent performance feedback as well as exercise development.

Structured training is generally accomplished by immersing participants in a realistic scenario, with cues and conditions set up to support a planned sequence of task performance. A key characteristic of structured training is that it is implemented through a comprehensive TSP, providing all the materials needed to plan, prepare, and conduct the training efficiently. This TSP facilitates the implementation of structured training exercises within a strategy or family of programs; for example, completing a sequence of exercises that progressively increase in difficulty.



### Applications of Structured Simulation-Based Training

The initial ARI involvement in structured training was in the design and development of the Virtual Training Program at Fort Knox, with the focus on use of Simulation Networking (SIMNET) for training maneuver platoons and company teams. This was followed by the development of similar structured training for the Close Combat Tactical Trainer. In parallel efforts ARI developed prototype structured training programs for battalion and brigade staffs. Products included individual staff officer training, small group exercises or vignettes for selected staff members, and large-scale battalion and brigade staff exercises.

The initial focus of ARI's structured training work was on effective use of virtual simulation to provide repeated practice in the execution of combat operations. Later work successfully applied the structured training approach to planning and preparing for operations as well as executing them. This work also showed that structured training could be applied to various constructive and live environments. Applications of structured training over the years have shown that it is adaptable and flexible to wide-ranging environments and needs.

## Challenges in Structured Training

The development and sustainment of a structured training program should be an integral part of the acquisition and sustainment of any training system. Many of the challenges in doing this have been addressed by ARI over the past several years. These include making a structured training program exportable with minimal personnel support, maintaining the currency of the program, designing the program to be flexible to meet dynamic users' needs, and distributing the development as well as the delivery of the program. Another critical challenge that continues to be addressed is performance assessment or measurement and feedback, a key to any successful training program.

The ARI efforts have led to many lessons learned about the development and implementation of struc-

tured simulation-based training. One consistent one is that education and leader development is key to successful implementation. Provision of trained trainers is also key; this may require techniques such as traveling surge teams. Trainers need tools and guidance for adapting the training to meet their unique and changing needs. And, as indicated above, performance measurement and feedback are key to any successful training. The many lessons that have been learned about structured training should be applied early in the acquisition of new training systems.

For additional information, please contact Dr. Billy L. Burnside, ARI- Armored Forces Research Unit, DSN 454-2613 or Commercial (502) 624-2613. [burnside@ftknoxari-emy15.army.mil](mailto:burnside@ftknoxari-emy15.army.mil)